



DRAFT Traffic Impact Analysis Need Screening / Scoping Request



TIA Need
Screening



TIA
Scoping



TIA
Submittal

A Traffic Impact Analysis (TIA) may be required for developments based on the site trip generation estimates, site context, or at the discretion of the NCDOT District Engineer. The Applicant or the TIA Consultant shall submit this form along with the site plan to the District Engineer to determine the TIA need and, if a TIA is required, initiate the TIA scoping process. Without an approved scope, the TIA review may be delayed or suspended until the study is revised to conform to NCDOT's TIA requirements.

Project Name: _____ **Previous Name:** If Applicable _____
Location: _____ **County:** _____ **Municipality:** _____
Project Description: _____

Project Contact: Applicant TIA Consultant
 Company Name _____
 Contact Person _____
 Phone Number _____
 Email _____
 Mailing Address _____

Site Plan Prepared By: _____ **Site Plan Date:** _____

See site plan/vicinity map requirements on page 2.

Parcel Size: _____ Acre(s) **Anticipated Build-Out Year:** _____

Weekday Site Trip Generation - Do NOT adjust for mode split, pass-by, internal capture, or diverted trips.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips Total	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Please Select
					Adj. Street							ITE Rate
					Generator							ITE Equation
					Please Select							Local Data**
					Please Select							Other Data**
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
Total												

Refer to the current [NCDOT Congestion Management Capacity Analysis Guidelines](#) for acceptable trip calculation methods and data sources.

**Explain local or other data sources, if used: _____

- ☐ The estimated site trips meet NCDOT's TIA trip threshold of 3,000 daily trips.
- ☐ The estimated site trips meet the municipal TIA trip threshold of _____
- ☐ This project is located in a known [STIP](#) and/ or local CIP project # _____
- ☐ This project includes a rezoning request.
- ☐ The proposed site access is located within 1,000 feet of an interchange.
- ☐ The Applicant requests for a new or modified control-of-access break.
- ☐ The Applicant requests for a new or modified median break.

Applicant's Signature _____
 Effective Date: __/__/2017

Print Name _____

Date _____
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Site Plan/Vicinity Map Requirement for TIA Need Screening: While the site plan may not be finalized during this project stage, the graphic representation of the proposed development shall provide adequate details on the development scope and context. More specifically, the site plan/map shall clearly show the location and type of each access point, spacing to adjacent and opposing driveways or intersections, internal street network, proposed buildings/parcels with their anticipated uses and sizes at full build-out and, if applicable, any nearby interstate, US, NC or Secondary Roads (SR).

Project Name: _____ **Project Reference Number:** _____

- ☐ **A TIA is Required by the Local Government.** In addition, the study area is expected to include NCDOT maintained transportation facilities.
- ☐ **A TIA is Required by NCDOT,** per the [Policy on Street and Driveway Access to North Carolina Highways](#).

If either or both of the boxes above are checked, the Applicant/TIA Consultant is hereby requested to fill out as much as possible of the following TIA scoping checklist, and return it along with the supporting documents to NCDOT prior to the scoping meeting.

- ☐ **A TIA is NOT required.** This decision is based on the development information presented above. Changes in the development plan will require re-evaluation of the TIA need, and may necessitate a TIA. The Applicant should inform the District Engineer any significant changes in a timely fashion to avoid delays in the driveway permit and/or encroachment agreement approval.

Additional Comments:

The TIA need decision is made by the NCDOT Division _____ District _____ on _____.

NCDOT District Representative's Signature
Email concurrence may be used in lieu of the signature.

Print Name

Effective Date: __/__/2017



DRAFT TIA Scoping Checklist



Project Name: _____

TIA Scoping Date: _____

☒ TIA Need Screening Forms are Attached. Project Reference #: _____ Decision Date: _____

☒ Site Plan and Access

☒ Provide a site plan illustrating site access, internal and external roadways, buildings and land uses.

Refer to NCDOT's [Policy on Street and Driveway Access to North Carolina Highways](#) pages 14 and 15 for site plan requirements.

☒ Identify site access.

New Access	On Road	Access Type		Driveway Spacing		
	Road Name	Permitted Movements	Traffic Control	Distance (ft)	Direction	Existing Adjacent Intersection
Access A		Please Select	Please Select		Please Select	
Access B		Conventional Full-Mvmt	Signal		East	
Access C		Roundabout	2-Way Stop		West	
Access D		RIRO	All-Way Stop		North	
Access E		RIRO w/ Left-Over	Yield		South	
Access F		Median U-Turn	Uncontrolled		NE	
Access G		Please Select	Please Select		NW	
Access H		Please Select	Please Select		SE	
Existing Access	Existing Intersection of		Access	Proposed Interconnectivity (If Applicable)		
	Road A	Road B	Modification	Connector #	Road Connected	Adjacent Development
Access 1			Please Select	Connector 1		
Access 2			New Signal	Connector 2		
Access 3			New Roundabout	Connector 3		
Access 4			N/A	Connector 4		

☐ Additional access clarifications and provisions (e.g., proposed control-of-access or median breaks, modifications of existing access, loading/unloading area access, bike/pedestrian accommodation).

☐ Proposed K-12 School Site

☐ NCDOT [MSTA School Traffic Calculator](#) for Select School Type shall be used.

☐ Peak Hour Factors (PHFs) shall be adjusted for new school trips (0.5 PHF by default).

☐ Internal school circulation analysis is required, and should be submitted in advance or concurrent with the TIA submittal.

☐ Clarify traffic operation plans (e.g. traffic circulation pattern, pedestrian access, drop-off/pick-up zone location and configuration, queue storage area and, if applicable, staggered start times).



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☒ Trip Generation

The TIA Consultant shall prepare trip generation estimates following the current [NCDOT Congestion Management Capacity Analysis Guidelines](#), and submit the calculation sheets and supporting information to the District Engineer for approval prior to capacity analysis.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips Total	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Please Select
					Adj. Street							ITE Rate
					Generator							ITE Equation
					Please Select							Local Data**
					Please Select							Other Data**
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
					Please Select							Please Select
Unadjusted Site Trips												
Internal Capture Trips (Attach Calculation Sheets)												Please Select
Internal Capture % of Unadjusted Site Trips				%		%			%			
LUC	Proposed Land Use	Any Internal Trips?		Pass-By % of External Trips								
		Please Select		%		%			%			Please Select
		Yes - Adjust External Trips		%		%			%			ITE Rate
		Not Applicable		%		%			%			Local Data**
		Please Select		%		%			%			Other Data**
		Please Select		%		%			%			Please Select
Pass-By Trips (Attach Calculation Sheets)												
Adjacent Street Volumes												Local Data**
Non-Pass-By Primary Trips												
Diverted Trips, if Applicable and Justifiable												Please Select

**Explain local or other data sources, if used:

☐ Existing Site Trip Information for Redevelopment Projects (Attach separate sheets as needed)

ITE LUC	Existing Land Use	Size	Unit	Daily Trips Total	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Traffic Counts
					Adj. Street							ITE Rate
Total Existing Site Trips												



DRAFT TIA Scoping Checklist



☒ Trip Distribution

- ☐ Trip distribution diagrams are submitted concurrently with this document (attach separate sheets).
- ☐ Trip distribution diagrams will be submitted separately, along with supporting information, to the District Engineer for review and approval prior to capacity analysis. The trip distribution shall be based on the current and anticipated traffic patterns, as well as instructions noted below.

If required by the District Engineer, the following additional diagrams shall also be submitted:

- ☐ Mixed-Use Developments (separate diagrams for residential, commercial, and office trips)
- ☐ Inter-Development Trips (if 'internal' trips cross public streets)
- ☐ Pass-By Trips
- ☐ Diverted Trips
- ☐ Each Analysis Period

☐ Mode Split

- ☐ Provide Data Source and Justification

Mode Period	Auto		
AM Peak	%	%	%
PM Peak	%	%	%
Daily	%	%	%
	%	%	%

- ☐ Identify proper infrastructure and accommodation for other modes of travel.

☒ Analysis Peak Periods:

- ☒ Weekday AM Peak _____
- ☒ Weekday PM Peak _____
- ☐ Weekday Midday Peak _____
- ☐ Weekday PM School Peak _____
- ☐ Weekend _____ Peak _____
- ☐ Other _____



DRAFT TIA Scoping Checklist



☒ Study Area Intersections and Data Collection

In addition to the site access intersections (both new and existing) identified under “Site Plan and Access” on page 3, the study area should also include the following external and/or internal intersections.

External Intersection	(Existing) Intersection of		Traffic Control	Intersection Turning Movement Counts			Notes
	Road A	Road B		New / Existing	Date of Counts	Growth Adjustment	
#1			Please Select	Please Select			
#2			Signal	Require New Counts			
#3			2-Way Stop	Use Existing Counts			
#4			All-Way Stop	Please Select			
#5			Yield	Please Select			
#6			Please Select	Please Select			
#7			Please Select	Please Select			
#8			Please Select	Please Select			
#9			Please Select	Please Select			
#10			Please Select	Please Select			
#11			Please Select	Please Select			
#12			Please Select	Please Select			

Internal Intersection	(Proposed) Intersection of		Access Type		Intersection Spacing		
	Road A	Road B	Traffic Control	Permitted Movements	Distance (ft)	Direction	Adjacent Street
#101			Please Select	Please Select		Please Select	
#102			Signal	Conventional Full-Mvmt		East	
#103			2-Way Stop	Roundabout		West	
#104			All-Way Stop	RIRO w/ Left-Over		North	
#105			Yield	RIRO		SW	

☒ New traffic turning movement counts in ☒ 15-min intervals ☐ 5-min intervals (near schools)
 Unless otherwise noted above, new traffic counts shall be collected at the existing study intersections during the analysis periods. Weekday counts shall avoid Mondays, Fridays, holidays, school breaks, road closures, and major weather events.

☐ To account for the impact of existing and/or proposed school traffic, PHFs will be adjusted for:

intersections numbered: _____

and access points numbered: _____

☐ Traffic Forecast Data for TIP: _____

☒ Roadway/Intersection Configuration & Traffic Control

☒ Traffic Signal Phasing & Timing Data

☐ Crash Data: _____ Period: _____

☐ Other: _____



DRAFT TIA Scoping Checklist



☒ Future Year Conditions

☒ Project Build-Out Year: _____

☒ Future Analysis Year(s): _____

☐ Identify below any funded/committed future transportation improvements, as well as any approved but incomplete developments near the site.

Funded STIP / Local CIP Project	Project Description		Year Complete
Nearby Approved Development	Location	Land Use	Committed Improvements

☐ Annual Growth Factor: _____%

Justification/Data Source: _____

☐ Local Comprehensive Transportation Plan Compliance

☐ Identify Applicable Local Transportation Planning Documents

☐ Identify Applicable Roadways inside the Study Area

Road Name	Classification	Speed Limit	Proposed Cross-Section	Proposed Right-of-Way	Compliance Requirements	Affect Study Intersection #



DRAFT TIA Scoping Checklist



☒ Study Method

The traffic analysis shall follow the current [*NCDOT Congestion Management Capacity Analysis Guidelines*](#), [*Policy on Street and Driveway Access to North Carolina Highways*](#), and use the current approved version of analysis software (e.g. Synchro/SimTraffic, HCS, Sidra Intersection, TransModeler).

The study shall include the following analysis scenarios for each analysis period.

1. Existing Conditions
2. Future No-Build Conditions (existing + background growth + approved developments + committed or funded improvements)
3. Future Build Conditions (future no-build + site trips)
4. Future Build with Improvements Conditions (future build traffic with improvements to mitigate the proposed development's impacts) and, if applicable:
- ☐ 5. TIP Design Year Analysis _____
- ☐ 6. Alternative Access Scenario (without proposed control-of-access or median break / modification)

The following additional analysis/outputs should be provided as warranted:

- ☐ Signal Warrant Analysis for the intersection(s) of _____
- ☐ Multi-Modal Level of Service Analysis
- ☐ School Loading Zone Traffic Simulation
- ☐ Phasing Analysis (scope separately as needed)
- ☐ Safety/Crash Analysis
- ☐ Control-of-Access Modification Justification
- ☐ Median Break / Modification Justification
- ☐ Other _____

☒ Submittals

In addition to the hardcopies required below, the TIA Consultant shall provide the District Engineer and, if required, the local government an electronic copy of the study documents, including the latest site plan, figures and appendices, in searchable PDF files and the original traffic analysis files (e.g., Synchro, HCS).

Submittals	NCDOT		Local Government	
	Electronic	Hardcopy	Electronic	Hardcopy
Trip Generation & Distribution	Required		Please Select	
Draft TIA Report	Required		PDF Report Only	
Final Sealed TIA Report	Required		Required	

- ☐ **Additional Comments** (municipal TIA requirements, approved variations from NCDOT guidelines)



DRAFT TIA Scoping Checklist



Agreement by All Parties

The undersigned agree to the contents and methodology described above for completing the required traffic impact analysis for the proposed development identified herein. Any changes to the above methodology contemplated by the Applicant or the TIA Consultant must be submitted to the District Engineer in writing. If approved by NCDOT, then such changes may be accepted for the TIA report. Subsequent revisions to the development plan (e.g. land use, density, site access, or schedule) may require additional scoping and analysis, and may modify the TIA requirements.

This agreement shall become effective on the date approved by NCDOT, and shall expire ____ months after the effective date or upon significant changes to the roadway network and/or development assumptions, whichever occurs first. Once expired, renewal or re-scoping will be required for subsequent TIA submittals.

APPLICANT

_____ Signature	_____ Print Name	_____ Date
--------------------	---------------------	---------------

TIA CONSULTANT

_____ Signature	_____ Print Name	_____ Date
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LOCAL GOVERNMENT REPRESENTATIVE (If Applicable)

_____ Signature	_____ Print Name	_____ Date
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Email concurrence may be used in lieu of the signature.

NCDOT DISTRICT REPRESENTATIVE

Reviewed and approved by the NCDOT Division ____ District ____ on _____.

_____ Signature	_____ Print Name
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Email concurrence may be used in lieu of the signature.



DRAFT TIA Submittal Checklist



Submittal: Please Select Document Date: _____

Project Name: _____ Previous Name: If Applicable _____

NCDOT Division: _____ District: _____ County: _____ Municipality: _____

TIA Consultant: _____ Submitted By: _____

Phone Number: _____ Email: _____

TIA Scoping Checklist Approval Date: _____ Unadjusted Daily Site Trips: _____

- ☒ The approved TIA Scoping Checklist is included in this submittal.
- ☒ LOS D or better is expected at all study intersections after proposed mitigations.
- ☒ The study report is sealed by a NC Professional Engineer with expertise in traffic engineering.
- ☒ This study has identified all known deficiencies with and without the proposed development.
- ☒ This study has identified mitigation measures to adequately accommodate the site trips.

Explain here if any of the boxes above are unchecked:

The undersigned affirms that, except for the deviations noted below, the TIA submittal conforms to the current [NCDOT Congestion Management Capacity Analysis Guidelines](#), [Policy on Street and Driveway Access to North Carolina Highways](#), and the TIA Scoping Checklist approved by the NCDOT District Office. The undersigned also acknowledges that the TIA review may be delayed or declined if the deviations and justifications are not properly documented.

Deviations and Justifications (e.g., changes in site plan, development schedule, site trip and off-site trip estimates, study area, data collection, analysis period and method. Attached separate sheets if needed.)

TIA Consultant's Signature
(Professional Engineer of TIA Record)

Print Name

Date

Effective Date: __/__/2017